

369 1. A network interface apparatus for preventing access to a sensitive
370 network, comprising:

371 a first interface, with a transmit and a receive port, for receiving
372 data from a sensitive network and for transmitting signals to said sensitive
373 network;

374 a second interface, with a transmit port, for transmitting said data
375 to a remote network;

376 an optical signal generator wherein a signal is transmitted from
377 said first interface to said sensitive network.

378 2. A network isolation device comprising:

379 a first media converter for receiving data from a workstation;

380 a second media converter for receiving data from said first media
381 converter, and transmitting said data to a remote computer;

382 an optical signal generator, wherein said optical signal generator
383 sends signals to said workstation to imitate a standard transmit and receive
384 connection, and said signal generator sends signals to said second media
385 converter to imitate a standard transmit and receive connection, whereby no
386 physical connection exists that said remote computer can send any signals to
387 said workstation.

388 3. A network isolation device as in claim 2, wherein said first media
389 converter, said second media converter and said optical signal generator are in
390 a common housing.

391 4. A network isolation device as in claim 3, wherein said workstation is
392 operatively connected to a network of data acquisition units.

393 5. A network isolation device as in claim 4, wherein said remote computer
394 is operatively connected to a network.

395 6. A system for isolating one network from a second network comprising:

396 a first network;
397 a second network;
398 an isolation box, operatively connected between said first and said
399 second network, including a first media converter, a second media converter
400 and a signal generator, wherein said signal generator sends signals to switches
401 on said first network and said second media converter whereby said switches
402 appear fully connected.